

Brighton Energy Co-op: An Innovation History



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Community Innovation for Sustainable Energy research team



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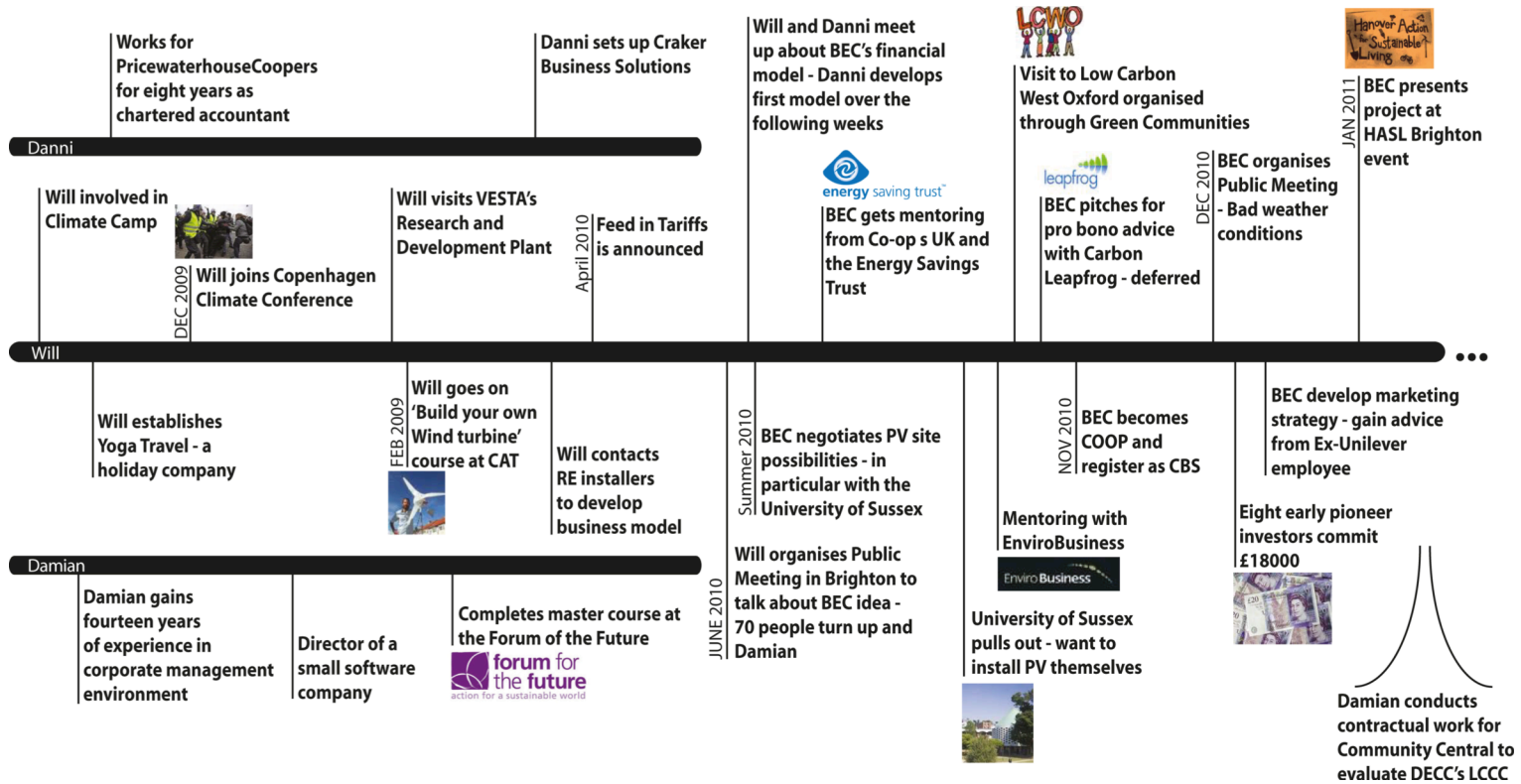
Brighton Energy Co-op

The Brighton Energy Co-op is a community renewable energy project based in Brighton & Hove. The Co-op currently consists of a chairman, Will Cottrell, two directors, Damian Tow and Ross Gilbert and three advisors, Danni Craker, Jeremy Leggett and John Smith. The Brighton Energy Co-op aims to run and finance renewable energy projects in Brighton & Hove whilst benefiting the local community and the environment. They want to enable people to invest money into renewable energy projects that provide a small financial return to its members but also deliver environmental and social benefits. In the process they aim to make the running of renewable projects more democratic. This innovation history traces the development of the Brighton Energy Co-op from its conception (i.e. the coming together of three people in June 2010) through its development phase, with its numerous setbacks and comebacks (e.g. provoked by changes to the Feed-in-Tariff) to its share launch in May 2012. This is a story of persistence, determination and opportunism.

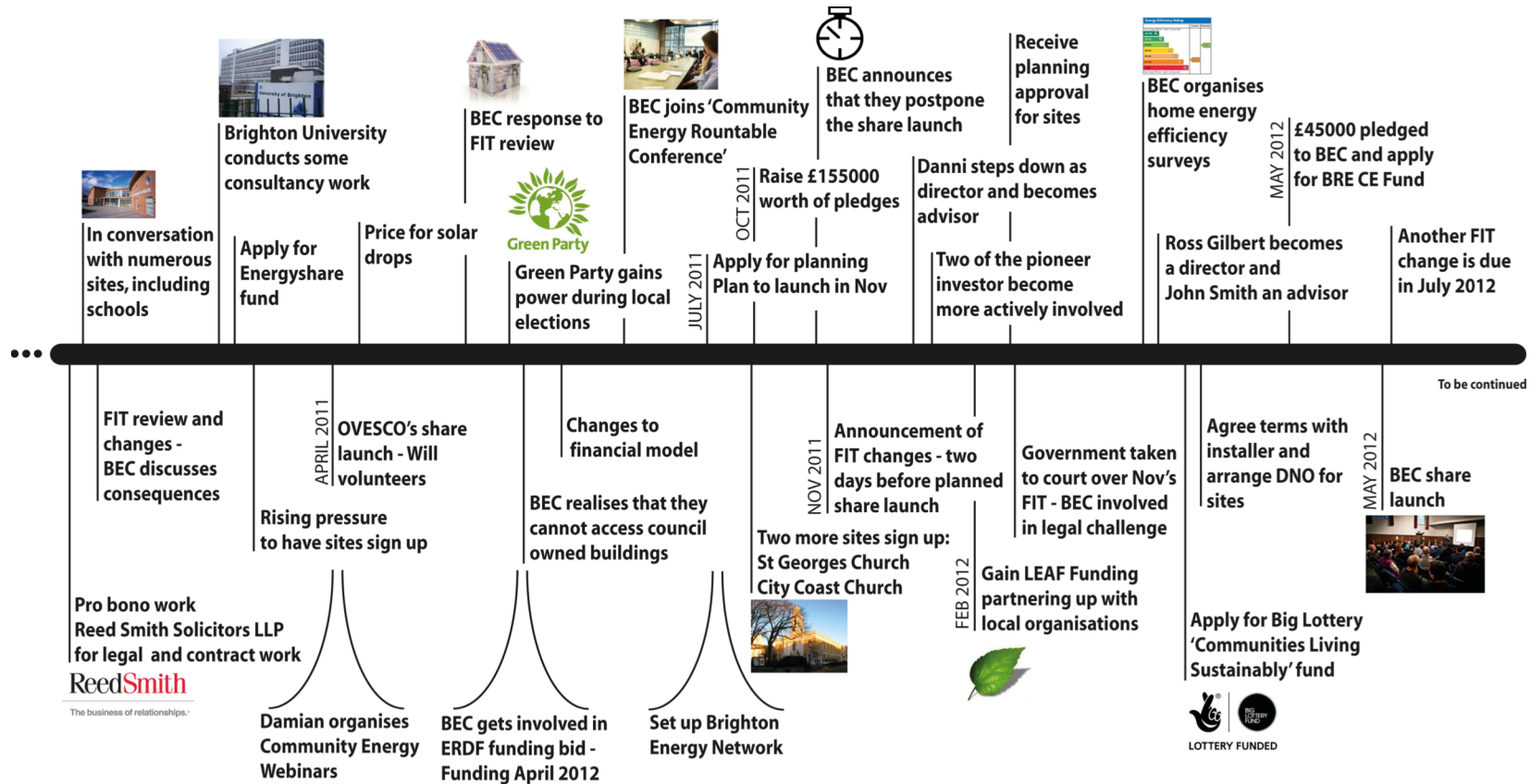
Key Insights

For the Community Innovations for Sustainable Energy (CISE) project, the Brighton Energy Co-op is particularly interesting because, through the group's ability to keep the project alive in a constantly changing policy and economic environment, it reveals a number of issues that appear to be important to how community energy projects may grow and diffuse. In particular:

- It shows that flexible visions are key for community energy groups to attract a wide audience of supporters – and in the case of the Brighton Energy Co-op to gain some necessary early investment.
- It reveals that it is challenging for community energy groups to sustain precise expectations about the project's aim throughout its development. Groups sometimes have to adapt their aims and expectations when moving between making sense of numerous technical details of the project (e.g. its organisational structure) and holding on to its original aims.
- It demonstrates that some community energy groups are actively engaged in networking activities with a diverse set of stakeholders (such as investors, site owners, policy-makers and other community energy groups) to progress their project. Although it is difficult to foresee how fruitful these relationships will be for the development of the project and sector, some groups invest a lot of time in maintaining them.
- It illustrates how crucial it is for community energy groups to show emotional stamina (the group members' ability to perform emotionally enduring situations over a period of time e.g. prolonged time of lack of opportunities and continuous challenges) to be able to work through disagreements between project members, deal with numerous external challenges and keep up the determination to pursue the project.
- It reveals not only how contextual changes (such as policy developments) can shape community energy projects but also how groups can exploit a shifting context to their own benefit or can attempt to shape it for the benefit of the community energy sector.
- It highlights a possible lobbying role for community energy groups in order to actively try to shape the wider policy, social and cultural context in which these projects can grow and spread.



Brighton Energy Co-op Timeline – Part 1



Brighton Energy Co-op Timeline – Part 2

The Community Innovation for Sustainable Energy Research Project

The combined pressures of climate change, peak oil and threats to energy security are increasingly seen as demanding a fundamental transition in the energy system. In this context, there has been a surge of interest and activity in small-scale, sustainable energy projects led by local communities. Examples include insulation clubs, energy awareness and behaviour change networks, and co-operatively-owned small-scale renewable energy systems. Whilst these projects have experimented with a wide range of different sustainable energy solutions, previous research has highlighted the profound challenges community energy projects face in growing, diffusing or even simply surviving. In particular, there is a tendency to treat them as marginal and parallel to mainstream energy systems. As such, little is known about how or why community energy projects do or do not spread or grow into wider society, nor about their potential influence on wider low-carbon transitions.

The Community Innovation for Sustainable Energy (CISE) research project engages with this gap in knowledge by examining the processes under which community energy projects have spread and grown within the UK. We do this with a view to providing independent advice to policy-makers, community groups and energy businesses about the merits and processes for supporting community energy. To achieve these aims, the CISE project is undertaking a variety of research activities. These activities include working with 12 community energy projects in-depth to explore the key challenges being faced on-the-ground, the extent of networking and learning between projects, and whether this is assisting in the diffusion of community energy.

Inspired by the Institutional Learning and Change Initiative, and by Bath University's 'Lowcarbonworks' project, the individual reports on each of the 12 projects are being presented as 'innovation histories'. Unlike conventional case study reports, innovation histories aim to gather human stories of what happened during project development to provide a multi-voiced account of the innovation process. They encourage key individuals to reflect on their own actions and how they are linked with the actions of others, and therefore make it possible for external parties to learn from others' real-life experiences. Rather than privileging the perspective of the researcher, innovation histories are presented in a narrative format that juxtaposes quotes from core participants, the researcher's own reflections on key developments, and wider theoretical insights relating to the innovation and diffusion of community energy. These are based on accounts gathered during in-depth interviews with project members and project meetings, and information gained from published materials and the project website. Participant and project anonymity has been respected where requested.

Participant
quotes

Researcher
reflections

Participant
reflections

Theoretical insights

Brighton Energy Co-op: An Innovation History

The beginning: Coming together and, most importantly, trying to 'do something'

The development of the Brighton Energy Co-op was initiated as a personal response to what he perceived as the failure of the Copenhagen Climate Change negotiations in December 2009. Gathering outside the conference centre with the slogan to 'act, do something' but soon realising that negotiations amounted to 'nothing at all', Will realised that instead of relying on someone else to act he had to do it himself. Though Will had been involved in Climate Camp for years, 'a kind of DIY mentality' emerged in the aftermath of the conference. Despite failed climate change negotiations, Denmark turned out to be a great source of inspiration. On his way to a Danish wind turbine manufacturer (VESTA), Will passed numerous villages on the train that had their own wind turbines and, as he later found out, 20% of them were community-owned.

The idea to set up a community solar project was not the first business idea that Will developed after Denmark. He first put his mind to learning 'how to build your own wind turbine' by enrolling on a course run by the Centre for Alternative Technology. The idea was to take this knowledge to numerous communities. However, the business concept was not financially viable and was therefore soon dismissed. A key requirement for any renewable project that Will wanted to develop was for it to be sustainable over time and financially independent from grants. Looking back Will recalls that the experience of 'building your own wind turbine' (in addition to buying a GCSE physics book) helped him to 'demystify' renewable technologies, making it less 'intimidating' and providing him with the confidence to continue his search for a viable renewable energy project.

Additional confidence to pursue his project came from learning about pioneering community renewable energy projects based in the UK. At the time Low Carbon West Oxford had just gained funding as part of the Low Carbon Communities Challenge Programme to realise their second community solar project to install 350kW on a school roof. Closer to home, Ouse Valley Energy Services Company (OVESCO), a community energy group who, after a long period of providing energy advice on behalf of the council, had decided to become a co-operative (hereafter co-op) to set up their own community owned solar project. Learning about the plans by the UK government to launch a Feed-in-Tariff set Will thinking about setting up a community owned solar project in Brighton & Hove.

Spurred on by this opportunity, Will produced several press releases, contacted people through e-mail lists and created a website to develop a name for the project – 'Brighton Energy Co-op'. He started to ring up solar installers and conduct research into 'how to start-up your own co-op'. The installers provided him with two financial models, outlining a 25 year financial projection and various factors that might impact on these models. Initially Will used these spreadsheets as a basis to develop a business plan for the Brighton Energy Co-op. Working mainly by himself on these ideas, Will wanted to ensure that the business would also make sense to others and decided to organise a public meeting in Brighton & Hove. It was important for Will to present a fully developed project proposal and not only an idea to the residents.

Will: "At the train station lots of delegates were waiting to go back home... lots of people were in tears and shell shocked... it struck me there: If we want to get this done, we have got to do it."

Will: "We can't leave it to someone else. It is not about representative democracy but participatory democracy. It is about doing it."

Will: "I bought a GCSE Physics book and went through it... just to get my head around waves, electric fields and magnetism... but doing the turbine demystified the technology... although it is not the same technology but it is still electricity... I am still not fully comfortable with it but it's less intimidating."

During a conversation with Will, I was left wondering about what initially causes people to act: a background in climate change, the mood at the time, being inspired by other projects, having a supportive network around you (friends and family), ability to engage others, an entrepreneurial mind, wish for change in one's personal life, belief that the project can make a difference...?

In June 2011 a public meeting took place in the Phoenix Community Centre. Speaking in front of a room full of strangers was a nerve-wracking task for Will. Although he had experience of setting up his own business, he felt that the business model for the solar project and his public speaking abilities required some improvement. His motivation to find an 'outlet for his frustrations' towards climate change policy and the oil and gas industry, carried him through the evening. On the day 70 people turned up, which demonstrated to Will the overall appeal of the idea. Although an initial success, after the meeting Will was unsure about how to continue with his plan to develop a community renewable energy project. His objective was to conduct a few public meetings to gain feedback on the development of the project and, subsequently, to create a more comprehensive business model. However, some of the people in the public meeting advised Will to find a core team of people who would work on the project before making it more public, and this is how he met Damian and Danni.

Will: "I am still not that good at public speaking... it showed the appeal of the idea that seventy people showed up... at that point I had no idea how we were going to take things forward... I had no experience in community development... I thought it was always done by committee... several people came up to me afterwards and said... you know that this is ridiculous... it had to be run as a business and to be made public when it was more formed..."



When working with the Brighton Energy Co-op, it became apparent that the project was not a commercial venture but driven by a desire to benefit the wider community. Still, what it means to give benefits to the community can be interpreted in different ways by community energy groups. Does the whole community benefit from the project if each of them has a chance to become shareholder in the co-op?

Damian, after hearing about the public meeting from a friend, emailed Will, who sent him the business plan ahead of their meeting in a local café. A couple of months later, Damian became a director of the Brighton Energy Co-op. Previously, Damian had his own IT company and throughout his career gained 14 years of business project management experience. He had recently completed a Masters in Leadership for Sustainable Development at the Forum for the Future. During this time Damian became interested in renewable energy and behaviour change (he regards the two subjects as being interlinked). Damian's interest was particularly directed at examining the social capital associated with renewable energy. Thus, getting involved in the Brighton Energy Co-op provided a perfect opportunity to apply some of his learning. Damian considered his involvement as being based on 'wider altruistic motivations' but also as a 'vehicle for a career change'.

I was struck by the team's skill sets and backgrounds that, from the outset seemed to create a perfect mix to develop a successful community-owned renewable energy project.

Will and Danni met at a Southern Co-op event, when Danni stood up and told people that she wanted to get involved in green projects. When Will understood that Danni was a chartered accountant and had worked for PricewaterhouseCoopers in London and Tokyo, he was keen for her to join the team. Danni had accountancy knowledge and experience in working out complex financial models. Whilst getting involved in the Brighton Energy Co-op, Danni was in the process of setting up her own accountancy company. At the beginning she considered the Co-op as a 'client' that allowed her to work with some 'inspiring' people, to learn a lot about community energy and to have a 'direct impact on climate change'. Danni was excited about the prospect of setting up local environmental projects

that would be financed through the Co-op, considering the solar project as a route to raise awareness for climate change.

Although the motivations for being involved varied between team members, what has bound them together is that they are young, entrepreneurial and environmentally minded; they want to act rather than talk and are looking for a career change.

Multiple expectations

Allowing for a flexibility of expectations, motivations and aims appear to be important for the development of community energy projects. Projects need to appeal on a variety of grounds to attract a wide audience of supporters to not only gain new members for the team but also access to investment, funding, information and advice. The Brighton Energy Co-op innovation history demonstrates how groups go through phases where they can clearly define their aims to a wider audience but also have to frequently open up and re-evaluate these expectations over time (i.e. episodes of opening up and closing down their aims). The need for flexible project aims and their re-evaluation over time are not acknowledged in most of the Strategic Niche Management literature. The literature reflects on the success of a niche (numerous projects) rather than on individual projects, and highlights the importance for a niche to develop precise and broadly accepted expectations that firm up over time. Most community energy groups struggle (and might not even find it desirable) to develop such precise aims on a projects level, and therefore it might be even harder to develop them as a niche.

Developing a project, whilst creating momentum and opportunities

After the public meeting Will understood the importance of having a team of people around him with enough experience to help him develop a credible project. The early team meetings were open to anyone with an interest in developing the project. Damian and Danni regularly joined these meetings and were accompanied by local solar installers and enthusiasts. Danni described these meetings as the team's efforts to 'find their feet', in particular gaining some confidence and exploring who will make up the final team. Although Will, Damian and Danni gained knowledge from some of the enthusiasts (specifically, on solar and the Feed-in-Tariffs), ultimately they acknowledged that they would make up the core team whilst the others accepted that they could not put enough time into the project to be a permanent member.

From that point onwards, and in addition to finding out how other community-owned renewable energy projects have succeeded, the team was busy developing their business model (e.g. having it reviewed by the National Energy Foundation), its organisational structure and financial basis. After several weeks, the team's business plan consisted of a 350kW solar installation and a £1m investment that would derive from shareholders based in Brighton & Hove and people interested in renewable energy outside of the area. This model was grounded on two assumptions: i) that potential shareholders would more likely invest in the project if they could gain a return on their investment from day one (rather than after 4-5 years); and ii) that potential sites (which would host the panels) would be more willing to collaborate if they could get free electricity for 25 years.

Danni: "I think it was always the people left in the room who had time to do it really. I think that is what it came down to with this kind of work – is people who are excited about it but they have not got the time to put into it. So you are left in the room with the skills of the people who are left..."

I was struck by the team's aspiration to raise such a large amount of money that seemed to be combined with a high risk of not obtaining it. Maybe because of their past business experience (e.g. being used to raising money and paying back loans) they were not worried about the risks. Most of the time they appeared to be exited about this challenge, in particular about the prospect of being one of the 'largest' community-owned solar projects in the UK.

Will pointed out that a CBS is “halfway between a charity and an IPS so there is more of an aspiration towards community benefits... a softer, fluffier version of an IPS”.

Soon after working out the ‘tail end of the financial model’, the Brighton Energy Co-op team focused on the legal structure for the project. Danni knew that they would become tax liable (based on her accountancy and business experience) and therefore a legal structure was essential. After some long deliberations the team decided to become a ‘community benefit society’ (CBS), a form of ‘industrial provident society’ (IPS) – both legal entities provide benefits to the community. The choice to become a CBS was mainly based on their research into supporters’ views, exploring the advantages and drawbacks of differently constituted co-operative models (Will had sent out a survey to all of the Brighton Energy Co-op supporters, who had signed up to their emailing list). The research demonstrated that the supporters were particularly interested in being part of something that provides social and environmental benefits. To be able to demonstrate to their supporters that the organisation is keen to give something back to the community, they discarded the idea of setting up a ‘community interest company’ (CIC).

Setting up as a CBS was not an easy process for the team and initiated hours of discussion and research. One of the first steps was to agree on the ‘articles of association’ for the organisation. These articles are based on existing ‘model rules’ in the case of co-ops. One of the challenges presented itself through the amount of ‘model rules’ from which they could choose one for their organisation. They could find about twenty from varying ‘sponsoring bodies’ (such as Baywind Energy Co-op and The Co-operative). The team was also surprised about the length of the ‘model rules’ – some were up to fifty pages long, and the detail of the information provided (e.g. what would the organisation do if one of the members becomes mentally incapacitated?). Further, the use of ‘legal jargon’ made these documents sometimes difficult to comprehend.

Will: “You take the bits of information that you have got and then think about it... I never thought about an organisational structure in my life. I remember reading at university a book on organisational structures in media studies... incredibly boring.”

After reading through ten of the ‘model rules’, Will, Damian and Danni tried to make sense of them during numerous team meetings to reach a decision. They regarded this process as extremely important because these ‘model rules’ outline numerous fundamental aspects of the organisation (such as questions surrounding the return of investments and the inclusion of community benefits). During these meetings the team sometimes felt that they were ‘going around in circles’, as the decision-making process was far from straight forward. The team realised that they had to envision how the organisation would operate before settling upon the legal structure.



Often the team had to go with their own ‘best judgement’ to move one step closer to reaching a decision. The group even attempted to create their own ‘model rules’ before deciding to adopt ‘Co-op community assets’ – as they were the most understandable. The Co-operative provided the team with some guidance on how to source and make sense of these documents (e.g. explaining some of the implications of the various clauses). However, this contact time was limited. At the time the Brighton

I wonder how much emotional stamina and support is needed between team members to work through these complex technical processes. At the time, I had not joined the team meetings but it cannot have been easy to reach an agreement and keep the interest in the topic going. For example, Will could get easily bored with some of the ‘legal jargon’, relying on Danni’s past experience to make sense of the documents.

I was struck by the fact how much time the directors spent on developing their organisational structure, seeing that some community energy groups just take one evening to decide on the structure. From the start, Damian and Danni were keen to develop a professional and flawless business model and therefore took a lot of time into discussing the ins and outs of the model. Soon after they had to realise that creating a perfect methodology is a rather challenging undertaking.

Will: "I think looking at what other people have done who are doing similar things and using those structures rather than trying to re-invent the wheel is a sort of basis for it... Talk to other co-ops that have their rules up and running..."

Will: The lack of clarity is based on the fact that these are "pretty side-lined organisations... this is a real niche in the FSA and in the governments minds."

Energy Co-op was not a member of The Co-operative and officially was not allowed to ask questions. Their final decisions resulted from their own research, reading various 'model rules' and discussing the implications during team meetings. Danni's experience as an accountant (making sense of the 'legal jargon' and identifying financial implications that relate to the underlying legal structures) really helped the group during this process.

Informal networking processes and consultation with other community energy initiatives (such as Baywind and Sustainable Hockerton) provided feedback on decisions that had been made, and confirmation that most community energy groups have chosen to be Community Benefit Societies. A sense of relief developed when the team realised that other community energy groups were as unsure (as they were) about some of the implications of the clauses. Will pointed out that there were numerous 'grey areas' that needed to be considered when thinking about setting up a CBS or an IPS. Other groups encountered similar 'grey areas'. For example, nobody seemed to be very clear about what a community benefit might be – is it enough for an organisation to have 'community benefits' included in their 'model rules', or should they provide 'quantifiable' evidence that they are benefiting their community? But what would be the measure: carbon, jobs...? A 'leap of faith' and reliance on one's judgement seems crucial for the initiatives to progress at this stage of the development.

In November 2010, the Brighton Energy Co-op officially became a member of the Co-operative.

Relationship between learning and adapting project aims

Strategic Niche Management often assumes that a niche (and in this case a collection of community energy projects) is able to create strong and clear aims and expectations that encourage a wide range of advocates to support them, without highlighting the challenges of creating and sustaining such clear aims. The Brighton Energy Co-op case demonstrates the difficulties of reinforcing their aims, even on a project level, when learning about the different aspects of developing a project and working through the numerous technical details (e.g. organisational structure). Groups have sometimes got to adapt and evolve their aims when trying to make sense of these technical details. Additionally, a shifting policy, social, organisational and personal context can cause changes and adaptations of aims. The challenge of sustaining clear aims even on a project level might demonstrate how difficult it is for the niche to agree on, and sustain, robust and precise aims. Not only a project but also the niche can be influenced by a shifting context and lead to adaption of their expectations.

The process of working through the numerous model rules revealed that community energy groups have to work through technical and legal issues that are peripheral to mainstream practice, making the process even more complex.

Getting mentoring and working towards the second public meeting

Whilst getting to grips with the financial model and organisational structure, the (now) directors applied for numerous grants to finance the early development phase of their project. One of these grant applications provided them with the opportunity to get mentoring from EnviroBusiness. As part of this mentoring process, one of their accountants checked the Co-op's financial model and described it as 'brilliant'. Similarly, a voucher from the South East England Development Agency (SEEDA) that the directors redeemed with the University of Brighton, provided assurances on some

Danni: "We all came away from seeing LCWO (Low Carbon West Oxford) – all really excited and inspired. I don't know because no one seems to have done what we are trying to do – to raise community finance... I think the thing that I found really inspiring was... the workshops that they had run where they had people from the community coming in and they were educating them..."

Damian: "What we are trying to do... [is] to be able to pay ourselves a reasonable wage... otherwise it is likely to be a hobby activity or for retired people or people who have other incomes..."

Will: "I think there is a strong case for not having grant money... if you have to earn it yourself then you get used to standing on your own two feet."

Will: "Get people around you early and that is not necessarily people who are going to be involved in the development process... they are not going to be hands on but supporters... and get them signed up on a list... those people early on are translated into early investors that is where you get them from... email them and send them your newsletter... tell them how you are getting on."

of the legal issues surrounding community share offers that the Co-op had to engage with over the last months. Will, Damian and Danni felt that they were on the right track to develop a viable business that had a community benefit.

A subsequent visit to Low Carbon West Oxford (LCWO), which was sponsored by the Energy Savings Trust's Green Communities programme, offered the directors a very different mentoring experience. For the first time they could witness 'a community energy project in action'. Although the Low Carbon West Oxford group did not rely on community finance to realise their projects, the Brighton Energy Co-op was interested in their process of implementing it. They were able to ask detailed project development questions such as: How much they have spent on legal costs? How to access the Feed-in-Tariff? In the end it was a long and informative day for Will, Damian and Danni which ended with them feeling inspired, confident about what they were doing, and ready to get on with the hard work.

As well as feeling motivated, the visit to Low Carbon West Oxford demonstrated to the directors that their team might be slightly different from other community energy groups. From the beginning Damian and Danni were keen to use 'business language' when talking about the Brighton Energy Co-op. They regarded themselves as a young and professional team that was surrounded by groups made up of 'middle class pensioners with a bit of time'. Although the directors considered the work of these 'pensioners' as admirable, Will, Damian and Danni wanted to create a business model that could work for young professionals. One of the aspects of such a model was that the directors could 'gain a small financial reward' from developing such projects. They wanted to signal to other young people that they could get involved, and to other professionals that this is a 'serious and credible' business model.

In order to make the business credible it was essential for the directors to find a site that would host 350kW of solar panels for 25 years. Negotiations with the University of Sussex, a site that provided enough roof space to set up a viable community-owned solar project, took place even before Danni and Damian joined the team. Although the University was initially excited about the project, it never came to more in-depth conversations about a possible collaboration. After the Feed-in-Tariff announcement, the University of Sussex realised that this might be a lucrative business venture and told the Co-op that they will try to do it themselves, which was a real setback for the directors. When Danni and Damian joined Will, all three of them, were convinced that they would have the project up and running within a few months. After the University's decision, they realised that this will not be an easy target to achieve – where would they find a roof big enough to host 350kW of solar panels?

At the same time an additional issue occurred: The project was running out of money. The directors had received some early investment from one of Will's friends who supported the idea from the beginning, paying for some of their efforts (such as creating the website and generating a small income) but money was getting extremely tight. They needed to come up with ideas to raise finance. One of the mentors from The Co-operative Enterprise Hub (which at the beginning provided little input because people who promised to help never got back to the directors) advised Will, Damian and Danni to hold another public meeting to gain more funds. At first the directors were hesitant to make

One of the things that struck me most when engaging with the Brighton Energy Co-op was the amount of networking that seemed to occur throughout the process. The team needed to be able to connect to a variety of different audiences (such as schools, regulatory bodies, policymakers, community energy groups), sometimes making sense of conflicting advice, developing trust and a willingness to provide free advice.

It was interesting to observe how strongly the directors identified with the project, in particular, discussions that helped to develop this identity. For instance, when they discussed how they differentiate themselves from other groups and when they explored ways to create a unique project.

the project public but money was needed to continue. In the end, the plan was to tell their 200 supporters about their progress and future plans to gain some financial support (i.e. to conduct a pioneer share issue). Over the coming weeks they invited five speakers, developed a pioneer share issue document (verified by The Co-operative's legal team) and prepared presentations. The public meeting was set for the 2 December 2010.

On the day of the public meeting bad luck struck – the night before it snowed heavily in Brighton. Snowfall was so heavy that even the people living in the city struggled to get from one place to another. One hundred and fifty people had agreed to turn up to the meeting and in the end about fifteen made it there. None of the speakers could get to the venue. Nevertheless, Will, Damian and Danni presented their project. After the meeting six out of the fifteen attendees wanted to know more about the project and ways they could be of help. The directors met up with each member one-by-one and by the 12 December the team had raised £18000 towards their start-up costs. The directors pointed out that all of the investors who signed the pioneer investors share issue were male and between the ages of 36-60. They invested in the Co-op at a high risk with the possibility that they would never see their money again, but it meant that the project could continue.

For me this early and high-risk investment demonstrates the importance of having local supporters (which might arguably be not so challenging in Brighton). Still, the team was able to mobilise and gather momentum very early on in their project.

Diverse networks

Theories of strategic niche management stress the importance of networking processes in diffusing novel innovations. In order for these diffusion processes to occur they emphasise the importance of 'broad' (i.e. with lots of different kinds of stakeholders) and 'deep' (i.e. with regular interactions between stakeholders) networks. The early history of the Brighton Energy Co-op demonstrates that these networks might be emerging within community energy: including a variety of local and national stakeholders. However, to be part of these networks, community energy groups have to invest time into creating and maintaining these relationships. The directors could rely on some of their previous experience of building and creating relationships but also had to learn along the way about how to do this more effectively with a variety of stakeholders. Although, some relationships were incredibly fruitful from the start, others required the directors to re-think their negotiation strategies. In the context of community energy, the maintenance of these networks does not seem to be straightforward and a unilinear process.

Damian: "There is probably a broader movement... it probably felt a bit more like it a year ago when there was the LCCC funding around... lots of different business plans were seeing Feed-in-Tariffs as a vehicle for community energy which are probably becoming less of a vehicle. I don't know whether there is a great sort of coherence across groups... there is a range of different motivations..."

Keep developing the project...

In January 2011 the development of the project slowed down. Will had planned some time away from the UK and Damian got involved in broader issues within community energy. His idea to develop a 'one stop shop' information resource for community energy groups directed him to the 2Degrees' Community Central platform. Working with Community Central, Damian at first received some funding to speak to the Department of Energy and Climate Change's Low Carbon Communities Challenge (LCCC) winners to evaluate the programme. He then started to organise web-seminars on the Community Central platform where groups could exchange their experiences, and ultimately got involved in applying for European funding (ERDF) to develop a consultancy for community energy groups with the Ouse Valley Energy Services Company (OVESCO) and Low Carbon West Oxford

It seems that quite a few group members get involved in broader issues within community energy. As such, I wonder how they manage to balance the needs of their own local project with the ones of the community energy sector? And how far do these needs overlap? Or does one distract members from developing the other? The answer to these questions is probably not 'black or white' but balancing people's time between them cannot be easy.

(LCWO). At first this application was led by SEEDA, but after their closure in March 2012, OXCO2 (an Oxfordshire partnership between social enterprises) took the prime role in applying for the fund.

It was not until February 2011 that Will, Damian and Danni turned their attention back to the Brighton Energy Co-op. They felt that they needed to develop a strong marketing strategy, considering that their financial model was grounded on the basis of raising one million pounds. Back in December 2010, Damian had contacted the Totnes Renewable Energy Society (which at this point had struggled to obtain the money from their share launch) to obtain some information about marketing. They had also consulted a local expert but still felt that they needed to get a marketing advisor on board. The possibility of expanding the team with marketing, legal and technical advisors was discussed during numerous meetings. Nevertheless, these discussions and extra support never materialised. Instead this expert knowledge often derived from informal networking activities. For instance, the directors received support for their marketing, PR and social networking strategy from Hisbe (a social enterprise advocating sustainable food systems) and the Carbon Closure project (a company that discloses greenhouse emissions of major corporations). Even a member of Energy4All (a company that supports renewable energy cooperative in the UK) has been constant source of information.

In an attempt to gain pro bono (i.e. free) legal advice to develop the lease agreements with potential sites, Will pitched the project to Carbon Leapfrog. At the time they supported community energy groups by giving them pro bono access to professionals such as lawyers. On this occasion the Brighton Energy Co-op was turned down for not clearly stating the community benefit aspects of the project and having a too novel business model (since then the relationship to Carbon Leapfrog has become more fruitful). After gaining some legal support from Mary Walsh of Colbha Consulting, the directors were eager to find more permanent pro bono help. Through an informal chat with Sustainable Hockerton, Will found out that they had received pro bono legal support from Reed Smith (a law firm based in London). Will mentioned this to Danni and by sheer coincidence she met a friend's husband during a wedding a few weeks later who worked for Reed Smith. Two days after this encounter, this friend spoke to his colleague and pro bono advice was agreed with Reed Smith within a week. This agreement brought the directors one step closer to being able to sign up sites to their project, which in the meantime had become a bigger issue than they first thought.

Negotiations with potential sites had turned out to be tricky, in particular trying to convince them to enter a 25 year contract and considering that the directors had no track record of completing such projects. An additional challenge arose when the Department of Energy and Climate Change announced a fast track review of the Feed-in-Tariffs on the 17 February 2011. The government had increasingly become concerned about the impact of 'super-size solar installations' and therefore decided to cap the size of installations eligible for the Feed-in-Tariff at 50kW. Although Damian had already started to look at several sites to make up the 350kW, the hope persisted that they would find one large site. Consequently, the fast track Feed-in-Tariffs review was not the end of the project but made it much more complex. The Co-op took a 'portfolio approach' in order to make up the 350kW, which meant that they had to deal with eight to ten different sites. Each site required its own grid connection agreement, planning permission, insurance and lease agreement, leading to an increase of cost and time required to gather all the sites.

Will: "I think Leapfrog is a prime example... they give support to people that they can understand... I am not a Transition Town member, I am not fifty..."

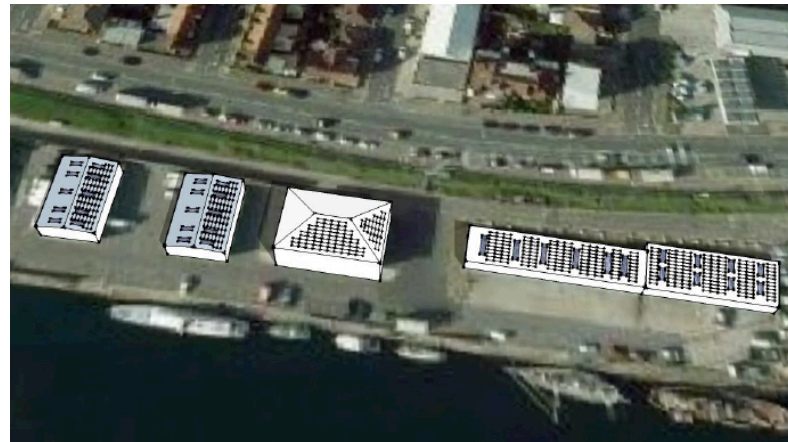
Will: "Because all of a sudden we were a start-up organisation with no reputation looking to put something on somebody's roof for 25 years."

I was struck by the fact that the directors sometimes seem to be able to progress the project because of a chance encounter that was extremely fruitful... These chance encounters often occurred after overcoming numerous hurdles and trying out numerous opportunities. Although for outsiders they might look like chance encounters, these opportunities often arise through hard work – determination and persistence seems to be a key in developing any community energy project.

Danni: "I think if we would have known how difficult it would have been to find sites and sign them up and especially with knowing that the Feed-in-Tariff is going to change our portfolio of what sites we were looking for.... we could have just started to look at more sites."

At the time of the announcement, Damian was in discussion with nine sites (a few schools, centres and apartment complexes) that looked promising. The plan was to finalise a contract with at least six 50kW sites so that they could hold their share launch in the summer of 2011. Although the people were enthusiastic about being part of a community-based project, decision-making processes were slow: each site had its own hierarchical decision-making procedures. For example, when approaching schools numerous people (i.e. the head teacher, sustainability manager, trustees and local council) had to agree to take part before any legal agreements could be discussed. These structures were not always transparent from the beginning, and working with all these different actors became a steep learning curve for Damian. Additionally, none of the directors had experience of leading such negotiations. Initial presentations to pitch their idea to potential sites were still rather sketchy. It required the directors to present several pitches to the sites to pick up their concerns about providing their roof. Each site asked for different documents to be prepared to help their decision-making process, prolonging the time required to sign up a site to the project. Damian had to provide an increasing amount of what he called 'customer care' to the numerous actors, often ending up with no decision, or one that meant that the sites wanted to do it themselves.

For me this change in Feed-in-Tariff demonstrates the groups' adaptability to various contextual changes and their determination to realise projects. Even more complex models are being pursued and even more time is invested rather than abandoning the project.



OVESCO launches their share offer: Interactions with community energy groups

After realising that they would not be able to sign up sites as quickly as they hoped, Will, Damian and Danni were encouraged to continue their project after seeing OVESCO launch their community solar share offer in April 2010. Against all the odds, OVESCO agreed a 97kW solar installation with a local Brewery (that provided the roof), reached their £307000 share launch target two weeks before it ended, and installed the panels just in time before the fast track review of the Feed-in-Tariffs was instituted in August 2011. The project was living proof to the Brighton Energy Co-op that community financed renewable projects could work. The two groups met for the first time during the Brighton Energy Co-op's first public meeting. OVESCO had heard about the event and were curious to see what the Co-op was planning to do. A few email exchanges followed, and both groups were thinking

Chris (OVESCO): "We are all at quite early stages so that there is no competition between us at the moment... And I don't think that the people who are involved feel competitive so that they would try and harm another group in any kind of way, trying to achieve what they want to... They are all trying to help one another..."

about working formally with each other. However, these more formalised exchanges never happened. The contact between both groups stayed mainly informal. Still, both groups see the benefits of having another community energy project on their doorstep because they can provide confidence to each other and use each other as examples during public events – 'we are not alone, there are others who are trying to do the same'.

As news about OVESCO and the neighbouring Brighton Energy Co-op spread, other community energy groups from around the UK began approaching them. These networking activities were mainly informal and based on providing inspiration or exchanging very specific information. More formalised exchanges were often regarded as challenging to realise. For instance, sometimes groups asked the directors whether they would be willing to share their business plan, financial model and/or legal documents. Although all of the directors were keen to work 'collaboratively', they had several concerns about sharing some of their documents. For instance, Danni was worried about sharing the financial model in case it was misinterpreted. In her opinion, it would be possible to produce a 'basic' financial model that could be made available to all groups but it would need to be picked up by someone who was knowledgeable enough to tailor the model to the group's specific context. A misinterpretation of the model could be fatal to the development of a project. Damian was also more reluctant to share their documents. He was happy to provide advice and support to other groups but at this point in time he was unwilling to share their business model. Another local group might get hold of the documents and develop their project. For him collaborations between schemes only worked if they were not a 'detriment' the groups' possibility to achieve their own goals.

Initially these broader engagements might be considered as a distraction from the actual solar project. However, when considering the need for a community group to create a reputation these interactions might be vital. Moreover, the directors considered the project as a possible career change. They wanted not only create a name for the Brighton Energy Co-op but also for themselves.



At the time Damian and Will were involved in informal networking activities with other community energy groups to develop the project, and lobbying activities with non-governmental organisations (such as Carbon Leapfrog and Forum for the Future) to benefit the development of the community sectors as a whole. For instance, Damian and Will were actively engaged in discussion and consultations surrounding radical cuts to the Feed-in-Tariff for solar PV. They supported efforts to secure a community tariff, providing solar systems installed by community energy projects with a

premium over the domestic payment rate. Additionally, Damian and Will got involved in giving numerous public talks, gaining coverage in national and local newspapers and attending conferences (such as Ecobuild and Carbon Leapfrog). They also attended community energy roundtables organised by the Department of Energy and Climate Change and meetings with ministers to contribute to the wider development of the community energy sector.

Although the directors regarded these informal networking and lobbying activities as important for their own development, more formalised collaborations have been pursued locally with other third sector sustainable energy organisations since June 2011. In particular, Damian and Will have been actively involved in setting up a Brighton & Hove based Sustainable Energy Working Group (including organisations such as Low Carbon Trust, the Green Building Partnership, Brighton & Hove 10:10 and the Brighton Peace and Environment Centre). The group meets up on a monthly basis to discuss and collaborate on energy related projects. They are in regular contact with Brighton & Hove City Council in order to gain funding for collaborative energy efficiency schemes. This grouping of organisations will play an important role later on in the innovation history.

Things get really tough before they get better: Finding a roof and lack of money

Whilst getting involved with local and national sustainable energy groups, Damian kept pursuing his search for sites. During this time, Damian realised that dealing with numerous sites not only added complexities but also various dependencies to the negotiation process. For example, although some of the installers (such as Solar Century and South Down Solar) had been incredibly helpful, providing a source of knowledge for any technical enquiries, at times it was difficult for Damian to get installers to survey the different sites. Some of them asked for a fee to come out and do the job, and others said that the Co-op should get back in touch once they had planning permission. Gaining planning permission for a site before knowing about its feasibility to produce enough kW, did not make a lot of sense for the Co-op, considering that sites dropped out after being surveyed because the roof space was too small or the angle of the roof was not quite right. Some help on this issue came from one of the early investors, John Smith, who provided support with surveying the sites. He provided advice on how to draw up the technical details and to judge the viability of the site. This support took the pressure off having to find an installer each time negotiations with a new site started, whilst Damian got more and more able to do his own initial surveys.

In addition to dealing with these issues, Damian felt that it was often difficult to judge the likelihood of a site actually signing up. For instance, at the time Damian was talking to numerous council-owned schools that were enthusiastic about taking part. Hopes that numerous schools would sign up increased when the Green Party gained power during local elections in May 2011, in particular when considering that the Party had an increased interest in building on the city's renewable potential. However, several weeks after the election the directors realised that they were still far away from reaching their goal. Although, the council had identified 41 different council-owned sites that showed a potential viability for renewables, they decided to set up a tendering process to find collaborators. During this process Will felt that they should look for an installer and an organisation with proven track record rather than a newly set up co-op that would provide the finance. After weeks of negotiations,

It was fascinating to observe how the directors got engaged in developing the community energy sector on two fronts: by providing direct support to other community energy projects and getting engaged in wider developments of the sector through, for example, conferences. Keeping these multiple roles going can potentially put a strain on any project.

I was struck by the initiative taken by some individuals to support the directors' efforts to realise the project.

For me, the tendering process highlights the importance of having an established reputation when starting a community renewable project. Community energy groups, such as OVESCO and LCWO, had already created a name for themselves through setting up energy efficiency projects before pursuing any renewable projects. This reputation might ease some of the early development steps.

Damian: "We find it quite difficult for anyone to come and look at the site for us to say 'yeah you could do this and you can install panels' which has meant it is very difficult to know whether it is worth getting into a commercial relationship, doing the legal things with sites and applying for planning permission."

all of the schools dropped from being hopefuls to non-contenders. Despite these occurrences, the relationship between the council and the Co-op remained positive and cooperative.

Danni: "I almost feel like a bit of a fraud going in there and saying I am part of BEC because we have not actually put up solar panels."

The lack of success in signing up sites started to take a toll on the team's motivation. The directors were planning to have a share launch to raise the money for the project in June 2011, but without having any sites the launch was not going to happen. In retrospect Damian and Danni described these months as extremely challenging, as the situation 'dragged out' for a long period of time. Several times the share launch had to be pushed back because no progress had been made on signing up the sites. Some tensions emerged between them because each had a slightly different approach to the site negotiations and none of them quite seemed to work. It was difficult to keep the motivation levels up at a time when nothing really seemed to move on. Although Danni was trained to deal with similar situations in her old job, it was difficult to bring these 'corporate practices' into this environment. At times it was difficult to appreciate each other's working styles. During this time they got increasingly concerned about being considered as 'frauds' in the eyes of others. They had started to provide support to other groups but doubts started to arise in how far they could offer help if they had not actually realised the project.

Damian: "A lot of funding and financial models are effective because they assume a blank sheet of paper... you raise the money, you have a site, you install, you get the income stream off it but there are no operational costs outside of that period of running the project... months' worth of effort in advance..."

The prolonged time of looking for sites also meant that, once more, the Co-op started to experience financial pressures. During several director meetings the topic of lack of money was raised. The directors knew that if the sites started to sign up then they would need to pay for the application process to gain planning permission, requiring money that was not available to them. Will and Damian sometimes came up with a variety of business ideas (such as plans for a buying club) before starting to pursue various other avenues to raise more money through contacting community energy funds and coming up with various fundraising ideas. During a Carbon Leapfrog conference in London, Damian met Jon from the BRE and Jeff from Finance South East who were in the process of setting up two different community energy funds.

Will: "After a while we laughed when the latest rejection letter through... like every week came a rejection. 'No you cannot have this... we gave it to Miss Mingens and her cat charity'..."

After the event Damian got in touch with them both but, at the time, neither fund could provide a loan to the Brighton Energy Co-op. For one of the funds they needed to have planning permission for one of the sites before they would be eligible for a loan, and the other fund financed hydro and wind projects rather than solar projects because of the high initial costs. Whilst Damian was talking to the funds, Will spoke to venture capitalists in order to find out whether they were interested in investing in the project. Nevertheless, for most of these venture capitalists the project was not profitable enough. In addition to trying to gain some loans or investors, they entered the Brighton Energy Co-op into competitions such as Energyshare and kept on applying for grants. Despite their best efforts none of these worked and the financial pressures prevailed.

For the directors it became increasingly more difficult to continue their involvement in the project. The idea to pay themselves a minimum amount throughout the process of developing the project had to be put aside. Damian and Will had to invest into the project financially for several months rather than getting paid for their efforts. Both of them felt that there was no real acknowledgement from funders and policymakers that solar projects required some upfront costs to develop it into a viable business. In the end it came to the point where Danni no longer was able to spend three days per week on the

I was struck by the fact that some skills were so easily transferrable between commercial and community practice (such as accountancy) whereas others are difficult to transfer, in particular intangible team building skills.

I was left wondering how other groups deal with life changes of key members that lead to them being less or no longer involved in the project and what impact this has on the overall development of a group. This change was probably not only caused by life changes but also based on feeling exhausted and changing expectations. How can projects deal with these situations, seeing that they rely on voluntary efforts?

Danni: "I think there is always this pressure on people that this is never their full-time occupation. It is a side thing. It is something that you might really believe in but this does not mean that you can continue to do it."

project because she had bills to pay. She decided to cut down her hours to one day a week. The process of getting to this stage had taken a lot longer than Danni imagined when she signed up to be a director. The prospect of getting involved in some local environmental community-based projects financed through the Co-op still seemed far out of reach.

Emotional stamina

Theories of strategic niche management say little about the need for emotional stamina to replicate and develop projects in new places, i.e. to spread and grow projects. The Brighton Energy Co-op demonstrates how crucial it is to show emotional stamina in order to work through disagreements between project members, deal with the numerous external challenges and keep up the determination to pursue the project goals even in tough times. The development of community energy projects seems to require a lot of 'invisible' labour and soft skills from groups that are critical for their success. These skills and efforts are difficult to transfer between projects and therefore add another layer of complexity when trying to develop shared lessons across projects. Strategic niche management seems to neglect the importance of these soft skills in developing a successful project and niche.

Things are starting to look up: Re-thinking and re-working the financial model

Damian: "You need to talk to fifty and that way you will end up with three..."

From June 2011, Damian and Will started to actively pursue more and more sites. They sent out emails to various local lists, conducted local radio interviews and managed to get an article in a local paper asking the public to help them with their search to find sites. Instead of speaking to five or six sites at a time, the search became much wider. They were in contact with a larger 'pool of sites', pushing for quicker decision-making processes. During this time numerous sites dropped out and others came into the mix. The directors decided to get a volunteer on board who could identify sites through Google Map so that Damian could ring them to ask whether they would be interested in participating. After only a few months, Damian had spoken to more than fifty sites.

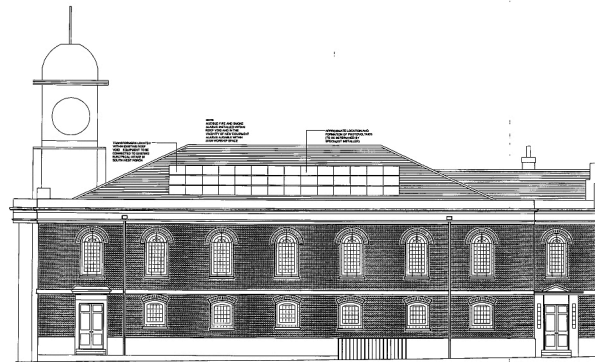
Damian: "I think what has been very useful to us all and my own motivation is seeing OVESCO pull it off effectively. And it is sort of really coming home to me that it is just a matter of focus and just continuing with the whole process... but clearly there is in this area an appetite to invest..."

In addition to changing their site negotiation approach, the directors reconsidered the calculations within their financial model. Over the previous months alterations to the model had become an increasingly iterative process, as changes to the Feed-in-Tariffs, rising start-up costs and decreasing solar prices had to be built into the model. During a directors meeting, Will and Damian asked Danni about the minimum amount of kW that they needed to produce from their array of solar panels to make the Co-op financially viable. They felt assured enough to recalculate their model, in particular, because of OVESCO's success of raising the money for their project a few months earlier, even when providing poor returns on people's investment during the first years of the scheme. A few days later Danni came back with a number between 120-200kW. If Damian and Will would wipe off all their current investment in the project and therefore lower the start-up costs, they could go with 120kW.

It seems that signing up sites to the project was one of the key issues that held up the progress of the project as such, I was wondering whether these challenges would have occurred if they had approached a wider pool of sites from the beginning and whether this learning could be applied to another project. A question that might arise is whether it is possible to develop a general approach to site negotiations within community energy or whether this is a 'learning by doing' process?

During this time, Damian and Danni realised that business models for community energy projects needed to be incredibly flexible so that groups could adapt them if circumstances change. Their initial aspiration to develop a 'perfect methodology for a community energy project', doing it in a 'corporate

and professional' way had become an extremely challenging undertaking. They realised that when attempting to create a 'perfect methodology', groups could easily run out of energy, motivation and money before completing the project. Although some community energy business models, in their opinion, were not as well crafted as theirs, it worked for them. Damian felt that they could have taken more risks and done more things in parallel (for example, applying for planning even if the sites had not yet signed the lease agreement) in order to progress more quickly.



I was amazed how much time the directors spent on discussing and developing their organisations structure and financial model, thinking through each detail in-depth and the patience they demonstrated when constantly having to iterate the model. Developing a community energy project is a complex undertaking and required knowledge within various specialised areas... is it really possible to develop a perfect methodology?

In July 2011 their approach to signing up sites finally paid off. Some of the sites that they had spoken to at the beginning had dropped out but with three others they entered more binding negotiations: Hove Enterprise Centre In Shoreham, St George's Church in Kemptown and City Coast Church in Portslade. The plan was to install 200kW before March 2012 (considering that another cut to the Feed-in-Tariffs was planned for April 2012).

A 'protective' space

Sustainability transition research emphasises the importance of a temporary 'protective space' in which sustainable innovations can grow. Protection is regarded as essential to facilitate the nurturing of an innovation, whilst temporarily shielding it from wider political, social and economic forces changes that could unsettle their development. The shifting national and local contexts (e.g. changes to the Feed-in-Tariffs), impacting on the development of community energy project particularly become apparent in the case of the Brighton Energy Co-op. A 'protective space' does not seem to exist within community energy, as projects are recalibrated by processes beyond the control of the group, making it difficult to standardise working process, develop methodologies that are not based on element of risk and create projects that are less time intensive and complex.

Setting up a community energy project in a shifting policy context: Postponing the share launch yet again

Will (website): "Although we have fought supremely hard – we have been forced to postpone our share launch tomorrow, after this week's Government announcement of cuts to the Feed-in-Tariff. We have made this decision reluctantly, but our primary concern is for our potential investors and we felt it was prudent to wait until the Government was clear what support it will give to community schemes."

After long deliberations the directors decided to launch the share offer from the 2 November 2011 to raise the funds for the purchase and installation of the solar panels but before going ahead with their decision they wanted to meet up with their pioneer investors to ask them for their support and guidance. During the pioneer investors meeting in August 2011, the directors were able to gain some positive feedback from the investors who were still fully confident that the project would go ahead. One of the investors, John, who had already helped Damian to survey some of the sites, offered his advice and time to get the sites through the planning process. He had extensive knowledge about how to apply for planning permission through his own business. With some of the sites signed up the directors' confidence grew from strength to strength. Over the previous few weeks Will, Damian and Danni had arranged dates and contracts with installers, gained planning permission for the sites, checked connections to the grid, received Microgeneration Certificate Scheme (MCS) and Distribution Network Operators (DNO) certificates, signed legal and insurance documents with the site and prepared the programme for the share launch.

Two days before the 2 November everything was arranged for the launch of their first public share issue: emails had been sent to the supporters, the date had been publicised, pledges were coming in and a month long programme was arranged. Then came the news: the government unexpectedly announced another Feed-in-Tariff review that meant that the tariff would be cut in half for any solar installation installed after December 2011. This announcement meant that the Co-op needed to install their panels within six weeks rather than by March 2012, as any cut in Feed-in-Tariff would make their business model unviable. The cuts slashed the subsidy by more than half – from 33.2p/kWh to 15p/kWh.

The directors were devastated. It had taken them months of hard work to get to this point, only to be knocked back by this announcement. After long deliberations between them and two of their pioneer investors, going through the various options to be able to install by December 2011, they decided to postpone the launch. In the end too many risks prevailed for the directors to 'stand in front of 150 strangers' and pitch their business. The share offer catalogue arrived an hour before Will sent out an email to the members that the launch was cancelled. For two weeks they went off to cope with the shock, having been so close to reaching the end goal (though it was just the start!) and realising that they owed various thousands of pounds to their early investors.

Will (website): "To add to the drama the government was also taken to court over the November's Feed-in-Tariff cut. They appealed to the High Court and then the Supreme Court – and eventually lost in February of this year. Consequently thousands of installations qualified for the higher rate – even though the deadline had long expired."

During the aftermath, Danni chose to step down as a director (she became an advisor). This sudden announcement of the changes to the Feed-in-Tariff and the loss of a crucial director could have been the end of the project but this was not the case. After only two weeks of recovering from this setback, Will and Damian became active again: They got involved in lobbying activities against the rapidity and size of November's Feed-in-Tariff, cuts and supported Friends of the Earth's legal efforts to take the government to court over the cuts. In response to these legal efforts, the government appealed first in the High Court and then the Supreme Court but finally lost their case in February 2012. During these lobbying activities Will and Damian were in contact with various individuals who are actively involved

At the time I was extremely surprised how quickly Will and Damian had picked themselves up from the setback. They seemed exhausted and devastated but maybe being so close to the end spurred them on to continue.

in supporting the development of the community energy sector. For instance, Will was in regular contact with Caroline Lucas, the Green Party MP for Brighton & Hove, who cited the experience of the Brighton Energy Co-op as emblematic of unsympathetic policy towards community energy during numerous parliamentary debates.

Additionally, Will and Damian contributed to the Feed-in-Tariff consultation, lobbying firmly for a favourable 'community tariff'. Similar to their first response to the fast track review of the Feed-in-Tariffs in February 2011, the directors made a case for an exemption for community energy projects from changes to the Tariffs. They recognised that it might be difficult for the government to make sense of these projects and therefore apply an exemption, considering that they are extremely diverse, but community campaigners advocated that they should be defined according to their organisational structure: Community Benefit Society or an Industrial Provident Society. These structures determine the non-commercial nature of these community energy projects and could be used as a basis for any exemptions. This exemption has been widely debated but has not been materialised.

It struck me how the directors did not only seek out opportunities to develop their project but also needed to get involved in lobbying to create and protect existing sources of opportunity.

Adopting a lobbying role

The development of the Brighton Energy Co-op demonstrates how not only individual projects but also in this case other community solar projects can be influenced by wider regime changes (such as policy developments). A community energy niche does not exist in a 'world of their own' but develops in the context of other competing niches and regimes. At a time when funding opportunities are scarce, community energy groups can no longer merely rely on efforts to develop a project within their local area. Instead they have to actively try to work beyond their own local context to try to shape the wider context (such as the cultural and policy context) in which community energy projects try to grow and spread – through adopting lobbying roles and creating niche practices that help projects to diffuse more widely. Such lobbying roles might be particularly important for community energy groups who develop projects within highly regulated industries (such as solar) but might be less important when groups are mainly engaged in other areas (such as behaviour change).

Will (website): "BEC (as Portslade Community) applied for LEAF funding – did not get money first round but second round for a smaller amount £24000.

Demonstrating resilience and flexibility: Gaining some LEAF funding

Whilst pursuing numerous lobbying activities, December 2011, the opportunity arose for Damian and Will to apply for LEAF funding (Local Energy Assessment Funds, organised by the Department of Energy and Climate Change). The aim of the fund was to better understand local energy efficiency and renewable energy generation issues. Damian regarded this as a chance to develop a collaborative energy efficiency project between the Brighton based Sustainable Energy Working Group members. After filling in the application form, the Brighton Energy Co-op received some second round funding (as Portslade Community) with some of the other Working Group members, involving the Low Carbon Trust, the Green Building Partnership, Brighton & Hove 10:10, and the

Being involved in a diversity of energy projects and activities can have the potential of having a positive impact on the group's resilience, sometimes raising their profile and credibility.

Brighton Peace and Environment Centre. The funding paid for home energy efficiency surveys, the development of self-assessment packs and draught excluders.



Will (website): "The price of solar has fallen by about sixty per cent in the last six months this is due to numerous factors: overcapacity in China and also the cuts of the Feed-in-Tariff in this country also meant that the installers installing stuff were suddenly out of work so there are a lot of installers out there without business so they have been cutting back on their margins as well..."

Will (Radio Free Brighton): "Last year the UK put up 780mW of solar about a quarter of a gas fire station... we had a huge boom and the government looked at this and panicked and decided to remove the subsidy... in some ways they were right because the price had indeed fallen by more than half... what they did wrong was that immediate reaction... they create a boom bust scenario... where there are a lot of installers out of work... and people think the whole thing is dead..."

In the meantime, Will and Damian had not given up on the idea of setting up a community-owned solar project in Brighton & Hove. They decided to continue with the project and to wait for the development of the Feed-in-Tariffs review. During this process they kept their supporters informed of the policy developments and asked them to reply to the Feed-in-Tariff consultation process. In addition, Will and Damian gained planning permission for City Coast Church and St George's Church, and were awarded a grant of £1250 from the Naturesave Trust. At the same time, Damian got increasingly involved with the idea of setting up a community energy buying club (as part of the ERDF funding bid with LCWO and OVESCO that was granted to the group at the beginning of 2012) and Will put a lot of his time into the Frack Off anti-campaign opposed to shale gas exploitation.

Hard work pays off and opportunities open up

Six months after the postponed launch event, a few opportunities opened up for Will and Damian to re-examine the possibility of a share launch in May 2012. Although in April 2012 the Feed-in-Tariff was halved and buildings required a certain level of energy efficiency to qualify as roofs, the project had once again become viable. This viability was grounded on the fact that PV costs had come down: the price of solar had more than halved thanks to economies of scale being achieved through massive growth in global production, especially panels from China and the consequent collapse of the UK boom during which installers were forced to reduce their margins. To get to this point Will and Damian received support from two of their pioneer investors, Jon and Ross, who had become an advisor and a director for the Co-op, providing guidance on technical issues, for example, DNO submissions and energy efficiency ratings. They also received the go ahead from two of their installers that they were in contact with, South Down Solar and NRG Renewables, and cleared all the legal and insurance issues with the three sites. All that was left to do was to plan the share launch and raise £185000.

It was interesting to observe how the group was able to exploit a shifting economic context (e.g. cut in solar prices).

The share launch event took place on the 16 May 2012 in the Brighton Friends Meeting house. One of the councillors, Jason Kitcat, and Caroline Lucas spoke about their support for the Co-op and Will and Damian explained the business model to the audience

“The Brighton Energy Co-op intends to install up to 145kWp of solar photovoltaic (PV) systems in order to generate clean electricity and financial return for members. We also aim to reinvest surplus income into other local renewable energy projects... Although we cannot guarantee any financial returns we intend to provide a return on investment to our members starting at 4% from the 1 July 2015, the end of the third year. BE intends to retain ownership of these panels and receive an income via the Government's Feed-in-Tariff scheme. Income will be used to administer BE's activities, fund withdrawal of shares and pay interest to members. Meanwhile host buildings will receive discounted electricity; any excess will be sold to electricity provider Good Energy.” (Taken from Share Offer document)

On the night, the audience raised some challenging questions about every aspect of the project, such as enquiries into some of the potential financial, legal, planning and social issues. The team members were able to answer all of them with a real confidence and credibility, making it easy for the audience to sign up to the project. The group's constant persistence and determination finally seemed to pay off.



Since then they have raised more than two-thirds of the money, installed all of the solar panels on Hove Enterprise Centre, presented the Co-op at numerous events (such as the Climate Connection Show), and started the installation on City Coast Church. Seeing some of the first panels up on the

roof was a proud moment for Will and Damian. All of the panels needed to be installed by July 2012 in order to avoid another cut in Feed-in-Tariffs.



Windows of opportunities: a shifting context

The Brighton Energy Co-op's Innovation History highlights the importance of 'context' for the development of the community energy sector and the diffusion of projects. On the one hand regime context changes (and in this case policy developments) seem to shape the development of the community energy niche and the development of individual projects, making the niche extremely fragile. On the other hand, groups can exploit a shifting context to their own benefit (e.g. cuts in solar prices) or can get involved in shaping it for the benefit of the sector (e.g. lobbying for a community tariff). Getting involved in such activities requires groups to spend additional time and effort on developing a lobbying role and to acquire even more knowledge and skills to make a case for the community energy sector. Such efforts might impact on the groups' internal project development role; seeing that there is less time to engage in their own projects. Groups need to try to strike a balance between this external and internal roles and in the process might be less effective in pursuing either one.

Steep learning curve: Persistence, determination and opportunism

The past two years have involved a steep learning curve for the directors. The Brighton Energy Co-op had to engage in the multiple aspects of setting up a community owned renewable energy project. This required the team to pick up skills quickly and competently through, for example, engaging with other groups, by visiting conferences and project sites, organising and facilitating seminars for groups to learn from each other's experiences, and creating local links with people who have become early investors and sometimes even advisors for the team. This determination has involved a lot of hard work for the team members – all to be able to install the first community owned renewable system in Brighton.



Plans already exist between the Brighton Energy Co-op and OVESCO to try to buy one of the wind turbines from EON's planned offshore windpark, directly off the coast from Brighton. Damian is still busy working on his community energy-buying club and Will, in addition to his campaign work, has various other projects mapped out in his mind. The innovation history does not really end here...